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Garrick et al.

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[54] **PROCESS FOR OPTIMIZING THE EFFECTIVENESS OF A HYPERTEXT ELEMENT**

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[52] U.S. Cl. **709/224**; 709/219; 707/501; 707/513

[58] Field of Search 709/203, 219, 709/207, 231, 224, 217, 218; 705/10; 395/200.54; 707/501, 513

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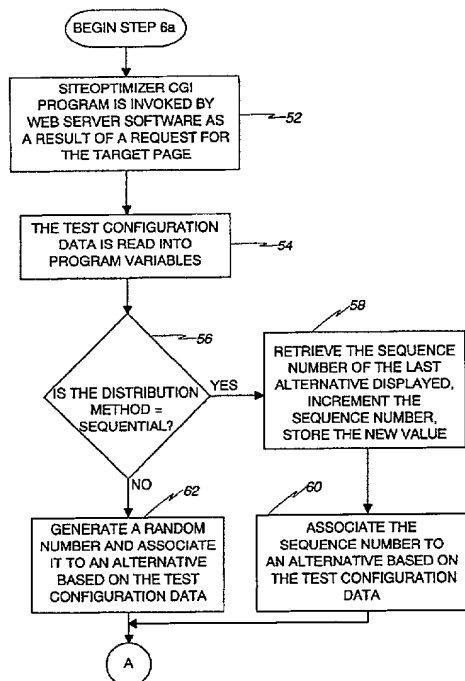
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[57] **ABSTRACT**

A process for optimizing the effectiveness of a web site analyzes various hypertext variables of hypertext documents formed from Hyper Text Mark-up Language (HTML) to identify weak links in order to improve compliances with the business objective for the web site. A plurality of alternate hypertext documents are created and placed in parallel paths relative to the original hypertext document according to a predetermined distribution pattern which may be sequential, equal distribution or random distribution, for example. Accesses to the web site are redirected to the alternative hypertext elements transparently. Access logs for each of the alternative hypertext documents are analyzed to determine the most effective alternative hypertext document, according to a predetermined criteria. The most effective hypertext element is then substituted for the original hypertext element in order to improve the effectiveness of the web site.

8 Claims, 22 Drawing Sheets

STEP 6a- SITEOPTIMIZER SELECTION CGI PROGRAM

BEGIN STEP 6a

SITEOPTIMIZER CGI PROGRAM IS INVOKED BY WEB SERVER SOFTWARE AS A RESULT OF A REQUEST FOR THE TARGET PAGE — 52

THE TEST CONFIGURATION DATA IS READ INTO PROGRAM VARIABLES — 54

IS THE DISTRIBUTION METHOD = SEQUENTIAL? — 56

YES → RETRIEVE THE SEQUENCE NUMBER OF THE LAST ALTERNATIVE DISPLAYED, INCREMENT THE SEQUENCE NUMBER, STORE THE NEW VALUE — 58

NO — 62

GENERATE A RANDOM NUMBER AND ASSOCIATE IT TO AN ALTERNATIVE BASED ON THE TEST CONFIGURATION DATA

ASSOCIATE THE SEQUENCE NUMBER TO AN ALTERNATIVE BASED ON THE TEST CONFIGURATION DATA — 60

A

STEP 6a- SITEOPTIMIZER SELECTION CGI PROGRAM

A

OBTAIN HTML STATEMENTS FOR THE SELECTED ALTERNATIVE — 64

DO THE ALTERNATIVE HTML STATEMENTS REQUIRE SUBSTITUTION? — 66

YES → PERFORM THE SUBSTITUTION BASED ON THE TEST CONFIGURATION DATA FOR THE ALTERNATIVE — 68

NO

REPLACE ALL OCCURRENCES OF THE COMPLIANCE LINK WITH THE URL OF THE SITEOPTIMIZER TARGET CGI PROGRAM IDENTIFYING THE SELECTED ALTERNATIVE — 70

RETURN THE HTML STATEMENTS TO THE WEB SERVER SOFTWARE — 72

APPEND A LOG RECORD TO THE TEST LOG FILE IDENTIFYING THE ALTERNATIVE SELECTED AND INFORMATION ABOUT THE ORIGINAL REQUEST — 74

THE SUMMARY DATA FILE IDENTIFIED IN THE TEST CONFIGURATION DATA IS UPDATED TO REFLECT A DISPLAY OF THE TARGET PAGE — 76

END OF STEP 6a